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Soggetti	Materials Optical materials Building materials Materials science - Data processing Nanotechnology Chemical detectors Materials for Devices Optical Materials Structural Materials Computational Materials Science Sensors
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Note generali	Includes author index.
Nota di contenuto	Method of Heap Leaching of Copper from Off-Balance Ore Dumps -- A Comparative Analysis of Step Channel TFET with the Impact of Work Function Engineering -- A Review on Biomaterials Based Biosensors for Bilirubin Detection -- Assessment of Anti-Bacterial Properties of Natural Extracts for Wound Healing Applications -- Current and Emerging Technologies for Resonance Frequency Analysis Based Devices for Measuring Dental Implant Stability: A Review -- Methods of Protection Against Destruction of Refractory Materials used for Lining of Autogenous Smelting Furnaces -- Comparative Study and Analysis of HVAC systems using Solid and Liquid Desiccant Dehumidification

Technology -- Optimization of Process Variables in Abrasive Water Jet Machining of Nimonic C-263 Super alloy using Taguchi Method -- Modeling the Dynamic of a SAG Milling System through Regression Models and Neural Networks -- Rayleigh- B enard Convection in the Presence of Synchronous and Asynchronous Thermal Rigid Boundary Conditions -- Nonlinear Thermal Instability of Couple-Stress UIDS in Porous Media under Thermal Modulation -- Preparation of Si-Graphite Composites as Anode Material in Li-ion Batteries -- Speculative Testament of Corrosive Behaviour of Aluminium Composite Welded by FSW -- Design and Analysis of Neural Network based MPPT Technique for Solar Power based Electric Vehicle Application -- Experimental Investigation on Mechanical Properties of Epoxy with Hybrid Filler Composites -- Structural and Photo Catalytic Studies of Ce and Dy co-doped ZnO Nanoflowers -- Mathematical Modeling Influence Electromagnetic Wave Plane on Functional Materials -- Strengthening A Pavement Layer By using Fly Ash.

Sommario/riassunto

The volume is a collection of best selected research papers presented at the 4th International Conference on Inventive Material Science Applications (ICIMA 2021) organized by PPG Institute of Technology, Coimbatore, India during 14 – 15 May 2021. The book includes original research by material science researchers towards developing a compact and efficient functional elements and structures for micro, nano and optoelectronic applications. The book covers important topics like nanomaterials and devices, optoelectronics, sustainable electronic materials, nanocomposites and nanostructures, hybrid electronic materials, medical electronics, computational material science, wearable electronic devices and models, and optical/nano-sensors.
